STIC Search Report
EIC 2600

STIC Database Tracking Number: 107855

TO: Young Y Lee
Location: KNX 06 A45
Art Unit : 2613
Wednesday, October 05, 2005

Case Serial Number: 10/054219

From: Paul Obiniyi
Location: EIC 2600
KNX 08 B55
Phone: 305-1836

paul.obiniyi@uspto.gov

Search Notes

Dear Examiner Lee,

Attached please find the results of your search. Please feel free to contact me if you have additional questions or would like a re-focus search. Thank you and have a great day.

Paul

(1)

RUSH SPE SIGNATURE _____ Access DB# 1078558

SEARCH REQUEST FORM

Scientific and Technical Information Center

EIC 2600

Requester's Full Name Young Lee Examiner # 72741 Date 10/4/05
Art Unit 2613 Phone Number 2-7334 Serial Number 10/054,219
Office Location KNX 6A45 Format preferred (circle) PAPER EMAIL BOTH

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Let us know what you already have and so do not need. Include the keywords, synonyms and meaning of acronyms. Define all terms that may have a specific meaning. Please attach a copy of the background, abstract, claims and other pertinent information.
Please state how the terms or keyword strings should relate to one another.

Title of the Invention _____
Inventor(s)
Heath

Earliest Priority date to be used 8/10/01

(1) Lempel - Ziv - Jeff - Heath (LZJH)
(2) Huffman

****

STAFF USE ONLY

Searcher Paul Obiniyi
Phone 27734
Location KNX 08B55
Date picked up 10/05/05
Date completed 10/05/05
Search Prep/review 40
Online Time 150

TYPE of Search
Text ✓
Litigation ___
Other ___

Databases Searched
Dialog ✓
STN ___
QuestelOrbit ___
LEXIS/NEXIS ___
Courtlink ___
Other WWW, IEEE PGSearch/Index

```
? show files; ds; save temp; logoff hold
File   9:Business & Industry(R) Jul/1994-2005/Oct 03
         (c) 2005  The Gale Group
File  15:ABI/Inform(R) 1971-2005/Oct 05
         (c) 2005 ProQuest Info&Learning
File  16:Gale Group PROMT(R) 1990-2005/Oct 04
         (c) 2005 The Gale Group
File  20:Dialog Global Reporter 1997-2005/Oct 05
         (c) 2005 Dialog
File  47:Gale Group Magazine DB(TM) 1959-2005/Oct 05
         (c) 2005 The Gale group
File  75:TGG Management Contents(R) 86-2005/Sep W4
         (c) 2005 The Gale Group
File  80:TGG Aerospace/Def.Mkts(R) 1982-2005/Oct 04
         (c) 2005 The Gale Group
File  88:Gale Group Business A.R.T.S. 1976-2005/Oct 05
         (c) 2005 The Gale Group
File  98:General Sci Abs/Full-Text 1984-2004/Dec
         (c) 2005 The HW Wilson Co.
File 112:UBM Industry News 1998-2004/Jan 27
         (c) 2004 United Business Media
File 141:Readers Guide 1983-2004/Dec
         (c) 2005 The HW Wilson Co
File 148:Gale Group Trade & Industry DB 1976-2005/Oct 05
         (c)2005 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275:Gale Group Computer DB(TM) 1983-2005/Oct 04
         (c) 2005 The Gale Group
File 264:DIALOG Defense Newsletters 1989-2005/Oct 04
         (c) 2005 Dialog
File 484:Periodical Abs Plustext 1986-2005/Oct W1
         (c) 2005 ProQuest
File 553:Wilson Bus. Abs. FullText 1982-2004/Dec
         (c) 2005 The HW Wilson Co
File 570:Gale Group MARS(R) 1984-2005/Oct 04
         (c) 2005 The Gale Group
File 608:KR/T Bus.News. 1992-2005/Oct 05
         (c)2005 Knight Ridder/Tribune Bus News
File 620:EIU:Viewswire 2005/Oct 04
         (c) 2005 Economist Intelligence Unit
File 613:PR Newswire 1999-2005/Oct 05
         (c) 2005 PR Newswire Association Inc
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Oct 05
         (c) 2005 The Gale Group
File 623:Business Week 1985-2005/Sep 29
         (c) 2005 The McGraw-Hill Companies Inc
File 624:McGraw-Hill Publications 1985-2005/Oct 04
         (c) 2005 McGraw-Hill Co. Inc
File 634:San Jose Mercury  Jun 1985-2005/Oct 04
         (c) 2005 San Jose Mercury News
File 635:Business Dateline(R) 1985-2005/Oct 05
         (c) 2005 ProQuest Info&Learning
File 636:Gale Group Newsletter DB(TM) 1987-2005/Oct 04
         (c) 2005 The Gale Group
File 647:CMP  Computer Fulltext 1988-2005/Sep W3
         (c) 2005 CMP Media, LLC
File 696:DIALOG Telecom. Newsletters 1995-2005/Oct 03
         (c) 2005 Dialog
File 674:Computer News Fulltext 1989-2005/Oct W1
```

File 810:Business Wire 1986-1999/Feb 28

File 813:PR Newswire 1987-1999/Apr 30

File 587:Jane`s Defense&Aerospace 2005/Oct W1

Set	Items	Description
S1	3	LZ()77 AND HUFFMAN

1/3,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

00755403 94-04795
Putting data on a diet
Weiss, Jeffrey; Schremp, Doug
IEEE Spectrum v30n8 PP: 36-39 Aug 1993
ISSN: 0018-9235 JRNL CODE: SPC

...ABSTRACT: method for lossless compression is run-length encoding. A more sophisticated compression algorithm is the **Huffman** coder, which tries to assign the most economical possible variable-length bit string to each symbol in an alphabet. Arithmetic codes were developed to overcome the fractional-bit deficiencies of **Huffman** codes. As good as they are, the **Huffman** and arithmetic models are less than efficient at modeling text. Far more effective are 2 simple string-matching techniques, known as **LZ - 77** and LZ-78. An area to which compression has a very large contribution to make...

1/3,K/2 (Item 1 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.

06828139 SUPPLIER NUMBER: 118957190
On the hardness of finding optimal multiple preset dictionaries.(Author Abstract)
Mitzenmacher, Michael
IEEE Transactions on Information Theory, 50, 7, 1536(4)
July, 2004
DOCUMENT TYPE: Author Abstract ISSN: 0018-9448 LANGUAGE: English
RECORD TYPE: Abstract

...AUTHOR ABSTRACT: simple compression problem is NP-hard: given a collection of documents, find the pair of **Huffman** dictionaries that minimizes the total compressed size of the collection, where the best dictionary from...

...each document. We also show the NP-hardness of finding optimal multiple preset dictionaries for **LZ ' 77** -based compression schemes. Our reductions make use of the catalog segmentation problem, a natural partitioning problem. Our results justify heuristic attacks used in practice.
Index Terms-- **Huffman** coding, **LZ ' 77** , NP-completeness, preset dictionaries, two-stage compression.

1/3,K/3 (Item 1 from file: 484)
DIALOG(R)File 484:Periodical Abs Plustext

06629187 SUPPLIER NUMBER: 764678221
On the hardness of finding optimal multiple preset dictionaries
Mitzenmacher, Michael
IEEE Transactions on Information Theory (EINT), v50 n7, p1536-1539
Jul 2004
ISSN: 0018-9448 JOURNAL CODE: EINT
DOCUMENT TYPE: Feature

LANGUAGE: English RECORD TYPE: Abstract

...ABSTRACT: simple compression problem is NP-hard: given a collection of documents, find the pair of **Huffman** dictionaries that minimizes the total compressed size of the collection, where the best dictionary from...

...each document. We also show the NP-hardness of finding optimal multiple preset dictionaries for **LZ ' 77** -based compression schemes. Our reductions make use of the catalog segmentation problem, a natural partitioning...
?

```
? show files; ds; save temp; logoff hold
File 344:Chinese Patents Abs Aug 1985-2005/May
         (c) 2005 European Patent Office
File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)
         (c) 2005 JPO & JAPIO
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200563
         (c) 2005  Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.

Set     Items   Description
S1       1621   HUFFMAN
S2          1   LZJH OR LEMPEL()ZIV()JEFF()HEATH
S3        283   AU=(HEATH, R? OR HEATH R? OR HEATH J? OR HEATH J?)
S4          1   S1 AND S2
S5          1   S1 AND S3
S6          0   S5 NOT S4
```

4/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015368221 **Image available**
WPI Acc No: 2003-429159/200340
XRPX Acc No: N03-342606
Data encoding/decoding method involves applying Huffman **coding algorithm on compressed codes generated from input data using** Lempel - Ziv - Jeff - Heath **data compression algorithm**
Patent Assignee: HEATH R J (HEAT-I)
Inventor: HEATH R J
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030031246	A1	20030213	US 2001311781	P	20010810	200340	B
			US 200154219	A	20011109		

Priority Applications (No Type Date): US 2001311781 P 20010810; US 200154219 A 20011109
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030031246	A1		16	H04B-001/66	Provisional application US 2001311781

Data encoding/decoding method involves applying Huffman **coding algorithm on compressed codes generated from input data using** Lempel - Ziv - Jeff - Heath **data compression algorithm**

Abstract (Basic):
... The compressed codes are generated from the input data to be encoded, using a **Lempel - Ziv - Jeff - Heath** (**LZJH**) data compression algorithm. A minimum redundancy coding algorithm such as fixed or dynamic **Huffman** coding algorithm, is applied on the compressed codes to generate compressed data.
... By using **Lempel - Ziv - Jeff - Heath** data compression algorithm and **Huffman** coding algorithm, data compression efficiency is improved...
...Title Terms: **HUFFMAN** ;
?

```
? show files; ds; save temp; logoff hold
File   9:Business & Industry(R) Jul/1994-2005/Oct 03
         (c) 2005  The Gale Group
File  15:ABI/Inform(R) 1971-2005/Oct 05
         (c) 2005 ProQuest Info&Learning
File  16:Gale Group PROMT(R) 1990-2005/Oct 04
         (c) 2005 The Gale Group
File  20:Dialog Global Reporter 1997-2005/Oct 05
         (c) 2005 Dialog
File  47:Gale Group Magazine DB(TM) 1959-2005/Oct 05
         (c) 2005 The Gale group
File  75:TGG Management Contents(R) 86-2005/Sep W4
         (c) 2005 The Gale Group
File  80:TGG Aerospace/Def.Mkts(R) 1982-2005/Oct 04
         (c) 2005 The Gale Group
File  88:Gale Group Business A.R.T.S. 1976-2005/Oct 05
         (c) 2005 The Gale Group
File  98:General Sci Abs/Full-Text 1984-2004/Dec
         (c) 2005 The HW Wilson Co.
File 112:UBM Industry News 1998-2004/Jan 27
         (c) 2004 United Business Media
File 141:Readers Guide 1983-2004/Dec
         (c) 2005 The HW Wilson Co
File 148:Gale Group Trade & Industry DB 1976-2005/Oct 05
         (c)2005 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275:Gale Group Computer DB(TM) 1983-2005/Oct 04
         (c) 2005 The Gale Group
File 264:DIALOG Defense Newsletters 1989-2005/Oct 04
         (c) 2005 Dialog
File 484:Periodical Abs Plustext 1986-2005/Oct W1
         (c) 2005 ProQuest
File 553:Wilson Bus. Abs. FullText 1982-2004/Dec
         (c) 2005 The HW Wilson Co
File 570:Gale Group MARS(R) 1984-2005/Oct 04
         (c) 2005 The Gale Group
File 608:KR/T Bus.News. 1992-2005/Oct 05
         (c)2005 Knight Ridder/Tribune Bus News
File 620:EIU:Viewswire 2005/Oct 04
         (c) 2005 Economist Intelligence Unit
File 613:PR Newswire 1999-2005/Oct 05
         (c) 2005 PR Newswire Association Inc
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Oct 05
         (c) 2005 The Gale Group
File 623:Business Week 1985-2005/Sep 29
         (c) 2005 The McGraw-Hill Companies Inc
File 624:McGraw-Hill Publications 1985-2005/Oct 04
         (c) 2005 McGraw-Hill Co. Inc
File 634:San Jose Mercury  Jun 1985-2005/Oct 04
         (c) 2005 San Jose Mercury News
File 635:Business Dateline(R) 1985-2005/Oct 05
         (c) 2005 ProQuest Info&Learning
File 636:Gale Group Newsletter DB(TM) 1987-2005/Oct 04
         (c) 2005 The Gale Group
File 647:CMP  Computer Fulltext 1988-2005/Sep W3
         (c) 2005 CMP Media, LLC
File 696:DIALOG Telecom. Newsletters 1995-2005/Oct 03
         (c) 2005 Dialog
File 674:Computer News Fulltext 1989-2005/Oct W1
```

File 810:Business Wire 1986-1999/Feb 28

File 813:PR Newswire 1987-1999/Apr 30

File 587:Jane`s Defense&Aerospace 2005/Oct W1

Set	Items	Description
S1	21187	HUFFMAN
S2	9	LZJH OR LEMPEL()ZIV()JEFF()HEATH
S3	465	AU=(HEATH, R? OR HEATH R? OR HEATH J? OR HEATH J?)

2/3,K/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

07584234 Supplier Number: 63544738 (USE FORMAT 7 FOR FULLTEXT)
ITU gives modem plan green light.(Brief Article)
Electronics Times, p3
July 10, 2000
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 67

(USE FORMAT 7 FOR FULLTEXT)
TEXT:
...procedures for modem and connection fault-finding. The data compression recommendation is based on Hughes' **LZJH** compression algorithm and gives an improvement in compression of more than 25% over the existing...

2/3,K/2 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter

12395175 (USE FORMAT 7 OR 9 FOR FULLTEXT)
ITU: Voiceband modem standards take another significant step forward
M2 PRESSWIRE
July 04, 2000
JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 547

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... facilitating modem and connection fault-finding..
The new data compression Recommendation is based on the **LZJH** compression algorithm developed by US-based Hughes Network Systems and gives an improvement in compression...

2/3,K/3 (Item 2 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter

12394547 (USE FORMAT 7 OR 9 FOR FULLTEXT)
ITU: Voiceband modem standards take another significant step forward
M2 PRESSWIRE
July 07, 2000
JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 546

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... facilitating modem and connection fault-finding.
The new data compression Recommendation is based on the **LZJH** compression algorithm developed by US-based Hughes Network Systems and gives an improvement in compression...

2/3,K/4 (Item 1 from file: 47)

DIALOG(R)File 47:Gale Group Magazine DB(TM)
(c) 2005 The Gale group. All rts. reserv.

05851057 SUPPLIER NUMBER: 63648834 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Pings&Packets - Searching the industry for technical connections and returning analysis in byte-sized packges.(News Briefs)
MacKenna, John
eWeek, 87
July 24, 2000
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 755 LINE COUNT: 00063

... rates of between 150K bps and 200K bps) would result from use of the new **LZJH** , or **Lempel - Ziv - Jeff - Heath** , compression algorithm, which generates a 25 percent greater compression ratio than the current standard. Faster...

2/3,K/5 (Item 1 from file: 112)
DIALOG(R)File 112:UBM Industry News
(c) 2004 United Business Media. All rts. reserv.

01265215 (USE FORMAT 7 OR 9 FOR FULLTEXT)
ITU gives modem plan green light
Electronics Times , p 3
July 10, 2000
LANGUAGE: English RECORD TYPE: Fulltext DOC. TYPE: Journal
WORD COUNT: 00000066

(USE FORMAT 7 OR 9 FOR FULLTEXT)
TEXT: ...procedures for modem and connection fault-finding. The data compression recommendation is based on Hughes' **LZJH** compression algorithm and gives an improvement in compression of more than 25% over the existing...

2/3,K/6 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

12404266 SUPPLIER NUMBER: 63648834 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Pings&Packets - Searching the industry for technical connections and returning analysis in byte-sized packges.(News Briefs)
MacKenna, John
eWeek, 87
July 24, 2000
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 755 LINE COUNT: 00063

... rates of between 150K bps and 200K bps) would result from use of the new **LZJH** , or **Lempel - Ziv - Jeff - Heath** , compression algorithm, which generates a 25 percent greater compression ratio than the current standard. Faster...

2/3,K/7 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2005 The Gale Group. All rts. reserv.

02418393 SUPPLIER NUMBER: 63648834 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Pings&Packets - Searching the industry for technical connections and returning analysis in byte-sized packges. (News Briefs)
MacKenna, John
eWeek, 87
July 24, 2000
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 755 LINE COUNT: 00063

... rates of between 150K bps and 200K bps) would result from use of the new **LZJH** , or **Lempel - Ziv - Jeff - Heath** , compression algorithm, which generates a 25 percent greater compression ratio than the current standard. Faster...

2/3,K/8 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)

04765642 Supplier Number: 64769676 (USE FORMAT 7 FOR FULLTEXT)
ITU AGREES TO THREE NEW STANDARDS FOR VOICEBAND MODEMS.
Online Newsletter, pITEM0024300A
Sept, 2000
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 409

... facilitating modem and connection fault-finding. The new data compression Recommendation is based on the **LZJH** compression algorithm developed by U.S.-based Hughes Network Systems and gives an improvement of ...

2/3,K/9 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)

04711062 Supplier Number: 63136329 (USE FORMAT 7 FOR FULLTEXT)
Voiceband modem standards take another significant step forward.
M2 Presswire, pNA
July 4, 2000
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 593

... facilitating modem and connection fault-finding..
The new data compression Recommendation is based on the **LZJH** compression algorithm developed by US-based Hughes Network Systems and gives an improvement in compression...
?

```
? show files; ds; save temp; logoff hold
File 348:EUROPEAN PATENTS 1978-2005/Sep W04
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2005/UB=20050929,UT=20050922
         (c) 2005 WIPO/Univentio

Set     Items   Description
S1       4137   HUFFMAN
S2          4   LZJH OR LEMPEL()ZIV()JEFF()HEATH
S3        180   AU=(HEATH, R? OR HEATH R? OR HEATH J? OR HEATH J?)
S4          0   S1 AND S2
S5          0   S2 AND S3
S6          0   S1 AND S3
```

2/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01694337
Segmented layered image system
Geschichtetes Bildsegmentierungssystem
Systeme de segmentation d'images en couches
PATENT ASSIGNEE:
MICROSOFT CORPORATION, (749866), One Microsoft Way, Redmond, WA 98052, (US), (Applicant designated States: all)
INVENTOR:
Simard, Patrice Y, 13126 NE 31st Place, Bellevue, WA 98005, (US)
Renshaw, Erin L, 13327 NE 135th street, Kirkland, WA 98034, (US)
Rinker, James Russel, 13615 NE136th Place, Kirkland, WA 98034, (US)
Malvar, Henrique S, 2302 233rd Avenue, Sammamish, WA 98074, (US)
LEGAL REPRESENTATIVE:
Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1388815 A2 040211 (Basic)
APPLICATION (CC, No, Date): EP 2003005430 030313;
PRIORITY (CC, No, Date): US 133558 020425; US 133842 020425; US 133939 020425; US 180771 020626; US 180649 020626; US 180169 020626
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO
INTERNATIONAL PATENT CLASS: G06T-005/00
ABSTRACT WORD COUNT: 157
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200407	2213
SPEC A	(English)	200407	18581
Total word count - document A			20794
Total word count - document B			0
Total word count - documents A + B			20794

...SPECIFICATION 42bis, and 6:1 for newer version V.44 2000, which is based on the **Lempel - Ziv - Jeff - Heath** (**LZJH**) compression algorithm. It is to be appreciated that other suitable compression methods or schemes can...42bis, and 6:1 for newer version V.44 2000, which is based on the **Lempel - Ziv - Jeff - Heath** (**LZJH**) compression algorithm. Other compression methods or schemes can be employed to encode the mask and...

2/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01694336
Clustering of a document image
Gruppieren eines Dokumentbildes
Regroupement d'une image de document
PATENT ASSIGNEE:
MICROSOFT CORPORATION, (749866), One Microsoft Way, Redmond, WA 98052, (US), (Applicant designated States: all)

INVENTOR:
Simard, Patrice Y., 13126 NE 31st Place, Bellevue, Washington 98005, (US)
Malvar, Henrique S., 2302 233rd Avenue NE, Sammamish, Washington 98074, (US)
Renshaw, Erin L., 13327 NE 135th Street, Kirkland, Washington 98034, (US)
LEGAL REPRESENTATIVE:
Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1388814 A2 040211 (Basic)
APPLICATION (CC, No, Date): EP 2003005429 030313;
PRIORITY (CC, No, Date): US 133558 020425
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO
INTERNATIONAL PATENT CLASS: G06T-005/00
ABSTRACT WORD COUNT: 151
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200407	1068
SPEC A	(English)	200407	12456
Total word count - document A			13524
Total word count - document B			0
Total word count - documents A + B			13524

...SPECIFICATION 42bis, and 6:1 for newer version V.44 2000, which is based on the **Lempel - Ziv - Jeff - Heath** (**LZJH**) compression algorithm.
The foreground encoder 1008 receives the foreground image and encodes the foreground image...

2/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.

01674976
Protocol message compression in a wireless communications system
Kompression von Protokollnachrichten in einem Mobilfunksystem
Compression d'un message de protocole dans un systeme de communication sans fil
PATENT ASSIGNEE:
LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, (US), (Applicant designated States: all)
INVENTOR:
Mooi Choo Chuah, 1 Skylark Court, Marlboro, New Jersey 07746, (US)
Tingfang Ji, 163 Walnut Court, Highland Park, New Jersey 08904, (US)
Subhasis Laha, 1285 Dunbarton Drive, Aurora, Illinois 60504, (US)
LEGAL REPRESENTATIVE:
Watts, Christopher Malcolm Kelway, Dr. et al (37391), Lucent Technologies (UK) Ltd, 5 Mornington Road, Woodford Green Essex, IG8 0TU, (GB)
PATENT (CC, No, Kind, Date): EP 1376878 A1 040102 (Basic)
APPLICATION (CC, No, Date): EP 2003253193 030522;
PRIORITY (CC, No, Date): US 172504 020617
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK
INTERNATIONAL PATENT CLASS: H03M-007/30; H04L-029/06

ABSTRACT WORD COUNT: 190
NOTE:
Figure number on first page: 5

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200401	359
SPEC A	(English)	200401	4703
Total word count - document A			5062
Total word count - document B			0
Total word count - documents A + B			5062

...SPECIFICATION sent and received messages can be used for the compression process.

A second solution uses **LZJH** (**Lempel - Ziv - Jeff - Heath**) as the compression algorithm. This second solution uses preloaded dictionary and a multi-packet mode, where the dictionary is updated using previous messages, and then using the **LZJH** compression algorithm. This second solution can reduce the first message by a ratio of 2...

2/3,K/4 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

01244459 **Image available**
SECURE AND PERSONALISED DISTRIBUTION OF AUDIOVISUAL FLOWS BY MEANS OF A HYBRID UNICAST/MULTICAST SYSTEM
DIFFUSION SECURISEE ET PERSONNALISEE DE FLUX AUDIOVISUELS PAR UN SYSTEME HYBRIDE UNICAST/MULTICAST

Patent Applicant/Assignee:
MEDIALIVE, 111, avenue Victor Hugo, F-75116 Paris, FR, FR (Residence), FR (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
LECOMTE Daniel, 157, rue de la Pompe, F-75116 Paris, FR, FR (Residence), FR (Nationality), (Designated only for: US)
HOSNY Reda, 36, rue de Picpus, Immeuble Les Chenes, F-75012 Paris, FR, FR (Residence), EG (Nationality), (Designated only for: US)
LAMTOUNI Mohammed, 310, avenue du General De Gaulle, F-92140 Clamart, FR, FR (Residence), MA (Nationality), (Designated only for: US)
Legal Representative:
BREESE Pierre (agent), BREESE-MAJEROWICZ, 3, avenue de l'Opera, F-75001 Paris, FR,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200553299 A2 20050609 (WO 0553299)
Application: WO 2004FR50613 20041124 (PCT/WO FR04050613)
Priority Application: FR 200350895 20031124
Designated States:
(All protection types applied unless otherwise stated - for applications 2004+)
AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LU MC NL PL PT RO SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: French
Filing Language: French
Fulltext Word Count: 5331

Fulltext Availability:
Detailed Description

Detailed Description
... type LZ
(Lempel-Ziv), par exemple LZW (une variante de LZ par Terry
Welch's),, **LZJH** (**Lempel** - **Ziv** - **Jeff** - **Heath** ou v.44 par ITU-T),
Des renouvellements periodiques des cles de Session
sont effectues...
?

```
? show files; ds; save temp; logoff hold
File   2:INSPEC 1898-2005/Sep W4
         (c) 2005 Institution of Electrical Engineers
File   6:NTIS 1964-2005/Sep W4
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2005/Sep W4
         (c) 2005 Elsevier Eng.  Info. Inc.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Oct W1
         (c) 2005 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2005/Sep
         (c) 2005 ProQuest Info&Learning
File  65:Inside Conferences 1993-2005/Oct W1
         (c) 2005 BLDSC all rts. reserv.
File  92:IHS Intl.Stds.& Specs. 1999/Nov
         (c) 1999 Information Handling Services
File  94:JICST-EPlus 1985-2005/Aug W1
         (c)2005 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2005/Aug W4
         (c) 2005 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2005/Aug
         (c) 2005 The HW Wilson Co.
File 144:Pascal 1973-2005/Sep W4
         (c) 2005 INIST/CNRS
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
         (c)2001 ProQuest Info&Learning
File 483:Newspaper Abs Daily 1986-2005/Oct 03
         (c) 2005 ProQuest Info&Learning
File 248:PIRA 1975-2005/Sep W3
         (c) 2005 Pira International

Set     Items   Description
S1       6147   HUFFMAN
S2          2   LZJH OR LEMPEL()ZIV()JEFF()HEATH
S3       3466   AU=(HEATH, R? OR HEATH R? OR HEATH J? OR HEATH J?)
S4          0   S1 AND S2
S5          2   S1 AND S3
S6          2   S5 NOT S2
```

6/3,K/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

09486451 INSPEC Abstract Number: B2005-08-6135C-165
Title: A joint source-channel distortion model for JPEG compressed images
Author(s): Sabir, M.F.; Sheikh, H.R.; **Heath, R.W.** ; Bovik, A.C.
Author Affiliation: Dept. of Electr. & Comput. Eng.,, Texas Univ., Austin, TX, USA
Conference Title: 2004 International Conference on Image Processing (ICIP) (IEEE Cat. No.04CH37580) Part Vol. 5 p.3249-52 Vol. 5
Publisher: IEEE, Piscataway, NJ, USA
Publication Date: 2004 Country of Publication: USA 5 vol. (xlii+3550) pp.
ISBN: 0 7803 8554 3 Material Identity Number: XX-2005-00398
U.S. Copyright Clearance Center Code: 0-7803-8554-3/04/S20.00
Conference Title: 2004 International Conference on Image Processing (ICIP)
Conference Date: 24-27 Oct. 2004 Conference Location: Singapore
Language: English
Subfile: B

Author(s): Sabir, M.F.; Sheikh, H.R.; **Heath, R.W.** ; Bovik, A.C.
...Abstract: compressed images due to both quantization and channel bit errors. Important compression techniques such as **Huffman** coding, DPCM coding, and run-length coding are included in the model. Examples show that ...
...Descriptors: **Huffman** codes
...Identifiers: **Huffman** coding

6/3,K/2 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

07467302 E.I. No: EIP05269177689
Title: A joint source-channel distortion model for JPEG compressed images
Author: Sabir, M. Farooq; Sheikh, Hamid R.; **Heath, Robert W.** ; Bovik, Alan C.
Corporate Source: Department of Electrical and Computer Engineering University of Texas at Austin, Austin, TX 78712-1084, United States
Conference Title: 2004 International Conference on Image Processing, ICIP 2004
Conference Location: Singapore Conference Date: 20041018-20041021
E.I. Conference No.: 65024
Source: Proceedings - International Conference on Image Processing, ICIP 2004 International Conference on Image Processing, ICIP 2004 v 2 2004. (IEEE cat n 04CH37580)
Publication Year: 2004
ISSN: 1522-4880
Language: English

Author: Sabir, M. Farooq; Sheikh, Hamid R.; **Heath, Robert W.** ; Bovik, Alan C.
...Abstract: compressed images due to both quantization and channel bit errors. Important compression techniques such as **Huffman** coding, DPCM coding, and run-length coding are included in the model. Examples show

2/3,K/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

07925983 INSPEC Abstract Number: B2001-06-6140-122
Title: New algorithm for data compression
Author(s): Heath, J.
Journal: Elektronik vol.50, no.5 p.66-73
Publisher: WEKA-Fachzeitschriften,
Publication Date: 6 March 2001 Country of Publication: Germany
CODEN: EKRKAR ISSN: 0013-5658
SICI: 0013-5658(20010306)50:5L.66:ADC;1-M
Material Identity Number: E071-2001-006

Language: German
Subfile: B

Abstract: The author describes the **LZjH** (**Lempel - Ziv - jeff - Heath**) data compression algorithm per ITU recommendation V.44. In this system, a tree structure is...

...a compressed data string is shown. This is stated to be scalable. Use of the **LZjH** algorithm in packet networks is explained.
...Identifiers: **LZjH** algorithm

2/3,K/2 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management

01491399 20010303216
Neuer Algorithmus fuer die Datenkompression. Die Grundlage der ITU-T-Empfehlung V.44
Heath, J
Hughes Network Syst., San Diego, USA
Elektronik, Poing, v50, n5, pp66-69,72-73, 2001
Document type: journal article Language: German
Record type: Abstract
ISSN: 0013-5658

ABSTRACT:
...als Symbole codiert werden, verwendet der LZ78-Algorithmus eine Tabelle mit Baumstruktur. Der neue Algorithmus **LZjH** (**Lempel - Ziv - jeff - Heath**) ist quasi eine Kombination aus beiden Algorithmen, wobei die History kein bewegliches Fenster darstellt, sondern...

...wird. Obwohl die Richtlinie V.44 in erster Linie fuer Modems ausgerichtet ist, kann der **LZjH** -Algorithmus, urspruenglich fuer ein Paket-Netzwerk entwickelt, praktisch fuer jede Art der Datenkommunikation eingesetzt werden...
?

```
? show files; ds; save temp; logoff hold
File 348:EUROPEAN PATENTS 1978-2005/Sep W04
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2005/UB=20050929,UT=20050922
         (c) 2005 WIPO/Univentio

Set     Items   Description
S1          2   LZ()77 AND HUFFMAN
```

1/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01591647
ENCODING APPARATUS AND METHOD; DECODING APPARATUS AND METHOD AND RECORDING MEDIUM RECORDING APPARATUS AND METHOD
CODIERUNGSVORRICHTUNG UND VERFAHREN, DECODIERUNGSVORRICHTUNG UND VERFAHREN UND AUFZEICHNUNGSMEDIUM, AUFZEICHNUNGSVORRICHTUNG UND VERFAHREN
APPAREIL ET PROCEDE DE CODAGE, APPAREIL ET PROCEDE DE DECODAGE ET APPAREIL ET PROCEDE D'ENREGISTREMENT DE SUPPORT D'ENREGISTREMENT
PATENT ASSIGNEE:
Sony Corporation, (214028), 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP), (Applicant designated States: all)
INVENTOR:
INOKUCHI, Tatsuya, SONY CORPORATION, 7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo 141-0001, (JP)
LEGAL REPRESENTATIVE:
Nicholls, Michael John (61941), J.A. KEMP & CO. 14, South Square Gray's Inn, London WC1R 5JJ, (GB)
PATENT (CC, No, Kind, Date): EP 1437713 A1 040714 (Basic)
WO 2003032296 030417
APPLICATION (CC, No, Date): EP 2002777800 020930; WO 2002JP10146 020930
PRIORITY (CC, No, Date): JP 2001307548 011003
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G10L-019/00; H04S-001/00; H04H-005/00
ABSTRACT WORD COUNT: 88
NOTE:
Figure number on first page: 001

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200429	3047
SPEC A	(English)	200429	9261
Total word count - document A			12308
Total word count - document B			0
Total word count - documents A + B			12308

...SPECIFICATION such as music data should be effectively compressed with a reversible code. As irreversible codes, **Huffman** code, arithmetic code, moving **Huffman** code, universal codes (LZ (Lemple Ziv) 77, LZ SS, LZ 78, and LZ W), and...

...become random numbers and encoded with a reversible code.
Reversible encoding is performed with a **Huffman** code. A pre-process is performed with an LZ code.
With a reversible code, data...

...correlation" and "time base correlation" can be accomplished by a simple arithmetic device. In addition, **Huffman** code encoding can be easily performed. Thus, both an encoding process and an decoding process...

...the present invention; Fig. 4 is a schematic diagram for explaining an encoding portion using **LZ 77** ; Fig. 5 is a schematic diagram for explaining the encoding portion of the reversible code...right channels

In the reversibly encoding, a **Huffman** code is used. As a pre-process, an LZ code is used.
With a reversible...

...and "time base correlation" can be structured with a simple arithmetic device. In addition, since **Huffman** code encoding can be easilyperformed, the encoding process and the decoding process can be performed...

1/3,K/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

01258409 **Image available**
RAPIDLY QUERYABLE DATA COMPRESSION FORMAT FOR XML FILES
FORMAT DE COMPRESSION DE DONNEES DE CONSULTATION RAPIDE POUR FICHIERS XML
Patent Applicant/Assignee:
KONINKLIJKE PHILIPS ELECTRONICS N V, Groenewoudseweg 1, NL-5621 BA Eindhoven, NL, NL (Residence), NL (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
MOREL Anthoy, Philips Electronics China, 21/F Kerry Office Building 218 Tian Mu, Xi Road, Shanghai 200070, CN, CN (Residence), FR (Nationality), (Designated only for: US)
Legal Representative:
KONINKLIJKE PHILIPS ELECTRONICS N V (commercial rep.), c/o HAQUE, Azir, Philips Electronics China, 21/F Kerry, Office Building, 218 Tian Mu Xi Lu Road, Shanghai 200070, CN,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200567153 A1 20050721 (WO 0567153)
Application: WO 2004IB52842 20041217 (PCT/WO IB04052842)
Priority Application: CN 200310124520 20031230
Designated States:
(All protection types applied unless otherwise stated - for applications 2004+)
AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL PT RO SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 6893

Fulltext Availability:
Detailed Description

English Abstract
...useless characters such as tabulators and white spaces are removed, indicating data marks are inserted, **LZ - 77** compression is applied, and finally the data are **Huffman** -encoded and packed in data blocks. The indicating marks are used to search in the...

French Abstract

...tabulateurs et les blancs sont enleves ; des marques de donnees indicatrices sont inserees ; la compression **LZ - 77** est appliquee et finalement les donnees sont codees **Huffman** et empaquetees dans des blocs de donnees. Les marques d'indication sont utilisees pour rechercher ...

Detailed Description

... g. the best known zip (.zip files) and gzip (.gz files). It is based on **Huffman** , LZ77 or both.

In the prior art, a compression device compresses the XML data and...

...structural diagram of a compressor in the prior art.

Compressor 100 comprises LZ77 encoder 102, **Huffman** encoder 104 and block packer 106. Compressor 100 compresses the XML data on the basis...

...the space from the beginning of the sequence in the bytes to the current byte.

Huffman encoder 104 performs **Huffman** -encoding to the codewords and literals, outputs a sequence of codes of different lengths and generates a **Huffman** list.

Block packer 106 obtains a **Huffman** list from **Huffman** encoder 104, packing the data into blocks, each of which could use different **Huffman** lists
or even does not need LZ77-encoding and **Huffman** -encoding at all. Here the packing has three possibilities: bypass compressing, using default **Huffman** list and using conventional **Huffman** list. The three possibilities are based on actual compression ratio and average amount of information...

...the compressed XML data, obtaining the XML data. Decompressor 200 comprises block header decoder 202, **Huffman** decoder 204 and LZ77 docoder206.

Block header decoder 202 decodes the compressed XIVIL data, obtaining a **Huffman** list and codes and/or literals of different lengths.

Huffman decoder 204 decodes the compressed XML data again, obtaining codewords and literals, and in the...

...an
embodiment of the present invention. The compressor 100 comprises a LZ77 encoder 102, a **Huffman** encoder 104, a block packer 106, and an indicating data block inserting device 302.
LZ77...

...data, and it may
also acts as a receiving device for receiving the XIVIL data. **Huffman** encoder
104 performs **Huffman** -encoding to the LZ77-encoded XML data, and provides **Huffman** list at the same time. LZ77 encoder 102 and **Huffman** encoder 104 together could form an encoding device for encoding the XIVIL data.

```
? show files; ds; save temp; logoff hold
File   2:INSPEC 1898-2005/Sep W4
         (c) 2005 Institution of Electrical Engineers
File   6:NTIS 1964-2005/Sep W4
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2005/Sep W4
         (c) 2005 Elsevier Eng.  Info. Inc.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Oct W1
         (c) 2005 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2005/Sep
         (c) 2005 ProQuest Info&Learning
File  65:Inside Conferences 1993-2005/Oct W1
         (c) 2005 BLDSC all rts. reserv.
File  92:IHS Intl.Stds.& Specs. 1999/Nov
         (c) 1999 Information Handling Services
File  94:JICST-EPlus 1985-2005/Aug W1
         (c)2005 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2005/Aug W4
         (c) 2005 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2005/Aug
         (c) 2005 The HW Wilson Co.
File 144:Pascal 1973-2005/Sep W4
         (c) 2005 INIST/CNRS
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
         (c)2001 ProQuest Info&Learning
File 483:Newspaper Abs Daily 1986-2005/Oct 03
         (c) 2005 ProQuest Info&Learning
File 248:PIRA 1975-2005/Sep W3
         (c) 2005 Pira International

Set     Items   Description
S1          4   LZ()77 AND HUFFMAN
S2          1   RD (unique items)
```

2/3,K/1 **(Item 1 from file: 2)**
DIALOG(R)File 2:INSPEC

09011515 INSPEC Abstract Number: B2004-08-6120B-059, C2004-08-7240-013
Title: On the hardness of finding optimal multiple preset dictionaries
Author(s): Mitzenmacher, M.
Author Affiliation: Div. of Eng. & Appl. Sci., Harvard Univ., Cambridge, MA, USA
Journal: IEEE Transactions on Information Theory vol.50, no.7 p. 1536-9
Publisher: IEEE,
Publication Date: July 2004 Country of Publication: USA
CODEN: IETTAW ISSN: 0018-9448
SICI: 0018-9448(200407)50:7L.1536:HFOM;1-T
Material Identity Number: I044-2004-008
U.S. Copyright Clearance Center Code: 0018-9448/04/$20.00
Language: English
Subfile: B C

...Abstract: simple compression problem is NP-hard: given a collection of documents, find the pair of **Huffman** dictionaries that minimizes the total compressed size of the collection, where the best dictionary from...
... each document. We also show the NP-hardness of finding optimal multiple preset dictionaries for **LZ ' 77** -based compression schemes. Our reductions make use of the catalog segmentation problem, a natural partitioning...
...Descriptors: **Huffman** codes
...Identifiers: **LZ ' 77** -based compression schemes...

... **Huffman** coding
?